

# OptiMATE 1

## Smart 12V battery maintenance



24/7 safe long term battery care

Optimizes battery power and life

100% automatic, 100% safe

**OptiMate™ 1**, The fully automatic charger for 12V lead-acid batteries of all types, with std filler caps, or sealed (MF) maintenance free and GEL.

Ideal for maintaining batteries of seasonally used or stored vehicles of all types.

The **OptiMate 1** is totally safe for prolonged connection to the battery, without risk of overcharging.

It is very easy to use as well. Connect to battery, then to the power socket and the rest is automatic.

**OptiMate 1. Battery performance guaranteed!**

1

Low Volt  
Start (4V)

2

Controlled  
CHARGE

3

OptiMate  
maintenance

## How it works

1. OptiMate 1 charges the battery with 0.6A current.
2. Starts at 8V, then delivers up to 0.6A bulk charge up to 14.3V, followed by maintenance charge mode at 13.4-13.5V, with interactive stand-by.

The voltage rises gradually as the resistance increases, until a safe limit has been reached. The circuit then switches into a float charge mode with voltage limited at 13.6V, to bring the battery gently to full charge & keep it fully charged when not in active use, as recommended by manufacturers of lead-acid batteries, without risk of over-charging.

3. Electronic multi stage controller for precise voltage and current delivery.
4. Inter-active stand by charging when the battery has been used or needs charge, OptiMate 1 automatically tops off the battery, then returns to maintenance mode.
5. 100 % Safe

An auto-resetting thermal fuse switches off the charger's output circuit if the internal temperature for any reason exceeds a safe limit, to protect the charger from burn-out. The yellow « charge » LED goes out until the temperature has fallen to a safe level, then the output circuit automatically switches back on and the yellow LED switches back on.

6. Incorrect battery connection

If the battery connections are incorrect (wrong polarity), neither the yellow « charge » LED, nor the green « maintain » LED will indicate.

7. OptiMate 1 has short circuit, over current and reverse polarity protection.

## Technical Specifications

|                                                                             |                                                                                |
|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Ideal for 12V lead-acid batteries                                           | 2Ah to 50Ah, AGM (MF), STD, GEL and AGM spiral cell                            |
| Program control                                                             | fully automatic (multi stage controller)                                       |
| Output current (bulk charge)                                                | 0.6A                                                                           |
| Charge time limit                                                           | maintenance time: unlimited                                                    |
| Maintain / test cycles                                                      | Keeps battery at 100% charged when not in use                                  |
| Charge retention test                                                       | Range: 12.2 - 12.7V. GOOD (green) = battery voltage > 12.7V                    |
| Size                                                                        | 100 x 63 x 76mm / 4 x 2 ½ x 3 inches                                           |
| Weight (packaging)                                                          | 0.64kg / 0.85 kg - 1.41lbs / 1.8lbs                                            |
| Output cable length                                                         | 3.6m / 12ft                                                                    |
| Included accessories                                                        | O-01 fused eyelet set, weather protected<br>O-04 clamps set for bench charging |
| Operation temperature range                                                 | From -20°C <-> 40°C / -4°F <-> 104°F                                           |
| Warranty                                                                    | 3 years                                                                        |
| AC supply                                                                   | North America (TM85) : 110-120V 50-60Hz<br>Europe (TM88) : 220-230V 50-60Hz    |
| Reverse drain current                                                       | less than 0.5mA                                                                |
| Power usage (no battery connected)                                          | 0.012kWh / day                                                                 |
| Ratings / approvals : Safety, EMC, Energy efficiency, enclosure seal rating | IP54, CE, NRTL (UL & CSA), SAA (AU & NZ), PSE (Japan)<br>approved by TUV Sud.  |